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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,154	12/11/2003	David (Tso-Chin) Ko		1560

25859 7590 04/18/2005

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EXAMINER

LEON, EDWIN A

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/735,154

Applicant(s)

KO, DAVID (TSO-CHIN)

Examiner

Edwin A. León

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiou et al. (U.S. Patent No. 6,193,552). With regard to Claim 1, Chiou et al.

discloses an electrical connector, comprising an insulative housing (1, 2) defining a front (10) and a rear mating (between 5) ports; and a plurality of contacts (2) received in the insulative housing, each of the contacts comprising a first contact portion (20) exposed to the front mating port and a second contact portion (21) exposed to the rear mating port. See Figs. 1-3.

With regard to Claim 2, Chiou et al. discloses the first contact portions of the contacts are arranged in a first mating plane (Fig. 3) which is lower than a second mating plane (Fig. 3) in which the second contact portions are arranged. See Figs. 1-3.

With regard to Claim 3, Chiou et al. discloses the insulative housing comprises a first housing (1) defining a cavity (between 5) on a rear side thereof, and a second housing (4) received in the cavity of the first housing. See Figs. 1-3.

With regard to Claim 4, Chiou et al. discloses the first housing defines a pair of slots (40) communicating with the cavity, and therein the second housing is formed with a pair of guiding portions (41) received in the slots of the first housing. See Figs. 1-3.

With regard to Claim 5, Chiou et al. discloses each of the contacts comprises a first (protrusion in the upper surface of 20) and a second (shoulder between 20 and 21) retention portions fitted in the first and the second housings, respectively. See Figs. 1-3.

With regard to Claim 6, Chiou et al. discloses the contacts are firstly assembled into the second housing, and then assembled to the first housing. See Fig. 2.

With regard to Claim 7, Chiou et al. discloses each contact comprises a protrusion (protrusion in the upper surface of 20) facilitating insertion of the contact into the second housing. See Figs. 1-3.

With regard to Claim 8, Chiou et al. discloses a shield member (3) surrounding the insulative housing and comprising a pair of solder portions (33) extending from opposite ends thereof adapted for soldering to a printed circuit board (Column 2, Lines 30-39) on which the electrical connector is mounted. See Figs. 1-3.

With regard to Claim 9, Chiou et al. discloses the shield member (3) comprises a plurality of sprint tabs (34) extending into the front mating port. See Figs. 1-3.

With regard to Claim 17, Chiou et al. discloses an electrical connector assembly comprising: an elongated insulative housing (1) defining a mating face (where 5 is

located) with opposite top (top of 1) and bottom (bottom of 1) faces by two vertical (sides of 1) sides thereof, a mating opening (131) being formed in the mating face and defining a mating direction thereof, a one-piece metallic shell (3) including spaced opposite top (302) and bottom (304) walls at least partially covering the top and bottom faces, respectively, a pair of connection portions (where 32 is located) located on the mating face by two sides of the mating opening, and a pair of side plates (32) respectively extending from the corresponding connection portions; wherein each of the side plates defines a locking structure (32) thereon. See Figs. 1-3.

With regard to Claim 18, Chiou et al. discloses the shell (3) forms two opposite end portions (301, 303) at two opposite lengthwise ends thereof, the end portions protectively covering the corresponding side plates in a lengthwise direction, respectively. See Figs. 1-3.

With regard to Claim 19, Chiou et al. discloses a passage (131) is formed between each of the end portions and the corresponding side plate so as to receive therein a guiding post (20) and a moveable latch (41) of a complementary connector (4). See Figs. 1-3.

3. Claims 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ko (U.S. Patent No. 6,648,668). With regard to Claim 10, Ko discloses an electrical connector assembly, comprising: a first connector (3, 21) comprising an insulative housing (21) defining a plurality of first passageways (210) and a plurality of second passageways (214) in alignment with the first passageways; and a plurality of contacts

(22) received in the insulative housing, each of the contacts comprising a first contact portion (224) arranged in one of the first passageways and a second contact portion (226) arranged in one of the second passageways; and a second connector (1) comprising: a housing (1); a plurality of terminals (234) received in the housing; a pair of latches (4) assembled to the housing to be interlocked to the insulative housing of the first connector. See Figs. 1-3.

With regard to Claim 11, Ko discloses the first connector defines a pair of latch holes (Fig. 7) engaged with the latches of the second connector. See Figs. 1-3.

4. Claims 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ko (U.S. Patent No. 6,619,985). With regard to Claim 12, Ko discloses an electrical connector comprising an insulative first housing (40) defining two opposite mating ends; a plurality of contacts (22) disposed in the housing, a metallic first shell (10) covering at least a portion of the first housing, and a metallic second shell (30) being positionable to the first shell and covering at least another portion (412, 416) of the first housing; wherein the first shell contributorily defines a first mating port (15) at one mating end (13), and the second shell contributorily defines a second mating port (formed from 421 to 412, 416) at the other mating end (end of 40), the first mating port and the second mating port being dimensionally different from each other. See Figs. 1-3.

With regard to Claim 13, Ko discloses a cavity (where 412 and 416 are located) is formed around one mating end, and the first shell covers the first housing except the cavity while the second shell covers the cavity complementarily. See Figs. 1-3.

With regard to Claim 14, Ko discloses an insulative second housing (20) disposed in the cavity corresponding to the second shell. See Figs. 1-3.

With regard to Claim 15, Ko discloses the first shell cooperates with the first housing to define the first mating port, and the second shell cooperates with the second housing to define the second mating port. See Figs. 1-3.

With regard to Claim 16, Ko discloses the first mating port is thinner than the second mating port. See Figs. 1-3.

### ***Allowable Subject Matter***

5. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The references fail to teach, disclose, or suggest, either alone or in combination, the latch defining thereon another locking structure latchably engageable with the locking structure and in combination with the rest of the limitations of the base and intermediate claims.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Iida et al. (U.S. Patent No. 6,821,158), Ko (U.S. Patent No.

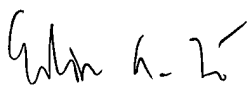
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6,273,753), Yang et al. (U.S. Patent No. 6,077,115) and Shin-Ting (U.S. Patent No. 6,811,439) discloses electrical connectors having insulative housings, contacts, shells and latches.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin A. León whose telephone number is (571) 272-2008. The examiner can normally be reached on Monday - Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800, extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Edwin A. Leon  
AU 2833

  
PHUC T. NGUYEN  
PRIMARY EXAMINER

EAL  
April 10, 2005